

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SHANTI SWARUP, DEBRA L. SINGER, GREGORY L. McCOLLUM,
KURT G. OLSON, S. TONYA STEFKO, RICHARD J. SADVARY,
ROBYN E. McMILLAN and MICHAEL A. MAYO

Appeal No. 97-0077
Application 07/968,807¹

ON BRIEF

Before: McKELVEY, Senior Administrative Patent Judge, and
SCHAFFER and LEE, Administrative Patent Judges.

McKELVEY, Senior Administrative Patent Judge.

Decision on appeal under 35 U.S.C. § 134

¹ Application for patent filed on October 30, 1992, under 35 U.S.C. § 116 and 37 CFR § 1.47(a) (named inventor S. Tonya Stefko having not executed a declaration). The real party in interest is PPG Industries, Inc.

Appeal No. 97-1848
Application 08/338,074

The appeal is from a decision of the Primary Examiner rejecting claims 1, 10-14, 16-17 and 20-29. We reverse.

A. Findings of fact

The record supports the following findings by a preponderance of the evidence.

The claimed invention

1. The invention is readily understood by reference to the two independent claims on appeal.

2. Independent claims 1 and 21 read as follows (indentation and some paragraph numbering added):

Claim 1: An aqueous-based curable liquid film-forming composition comprising

(1) 50 to 90 percent by weight based on weight of resin solids in the film-forming composition of a material selected from the group consisting of polyesters, polyurethanes or mixtures thereof containing a plurality of terminal or pendant carbamate groups only of the structure:



where X is |O and R is H;^[2] and

(2) 10 to 50 percent by weight based on weight of resin solids in the film-forming composition of an aminoplast crosslinking agent containing methylol and/or methylol ether groups;

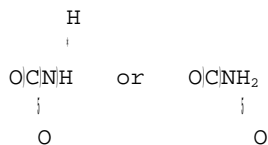
[a] said film-forming composition being crosslinkable through reaction of said pendant or terminal groups with said methylol and/or methylol ether groups;

[b] said film-forming composition being further characterized as having a calculated hydroxyl value less than 50 based on solid weight of said film-forming composition, excluding any hydroxyl functionality associated with N-methylol groups

[c] so as to result in a crosslinked coating which has a substantial number of urethane crosslinks arising from said reaction of pendant or terminal groups with said methylol and/or methylol ether groups,

[d] giving said crosslinked coating a high level of acid etch resistance.

² Given that X can only be O (oxygen) and R can only be H (hydrogen), one wonders why the formula is not set out simply as:



thereby eliminating any need to refer to X or R.

Claim 21: An aqueous-based curable liquid [clear³] film-forming composition comprising

(1) 50 to 90 percent by weight based on weight of resin solids of a material containing a plurality of terminal or pendant urea groups of the structure:



where X is N and R is

- [i] H or
- [ii] alkyl of 1-6 carbon atoms or
- [iii] R is bonded to X and forms part of a 5 or 6 membered ring;^[4] and

(2) 10 to 50 percent by weight based on weight of resin solids of an aminoplast crosslinking agent containing methylol and/or methylol ether groups;

³ The word "clear" should be present to provide an antecedent for "said clear film-forming composition" in subsequent paragraphs [a] and [b].

⁴ The definition of X may be incomplete insofar as the case where R is not bonded to X to form a 5 or 6 membered ring. We note that the specification also may be somewhat incomplete in this respect, defining X simply as N (page 2, line 10 and page 3, line 2). Given that the terminal or pendant group is said to be a urea group, we have construed the definition of X to be



in the case where R is not bonded to X. We leave it to the examiner and applicants to look into this matter further when proceedings are resumed before the examiner following this appeal.

[a] said clear film-forming composition being crosslinkable through reaction of said pendant or terminal groups with said methylol and/or methylol ether groups;

[b] said clear film-forming composition being further characterized as having a calculated hydroxyl value less than 50 based on solid weight of said clear film-forming composition, excluding any hydroxyl functionality associated with N-methylol groups

[c] so as to result in a crosslinked coating which has a substantial number of urea crosslinks arising from said reaction of pendant or terminal groups with said methylol and/or methylol ether groups,

[d] giving said crosslinked coating a high level of acid etch resistance.

Examiner's rejections

3. The examiner has rejected all the claims on appeal as being unpatentable under 35 U.S.C. § 103 over Nordstrom, U.S. Patent 3,479,328 (1969)⁵ in view of Reh fuss, U.S. Patent 5,300,328 (issued in 1994 based on an application filed October 23, 1992)⁶ (Examiner's Answer, page 2).

⁵ Nordstrom is prior art under 35 U.S.C. § 102(b).

⁶ Prima facie Reh fuss is prior art under 35 U.S.C. § 102(e). Applicants' assignee in a different application prevailed in an interference against Reh fuss. Interference 103,711. Applicants were invited to file a supplemental brief addressing the prior art status of Reh fuss (Paper 23). In a Supplemental Appeal Brief (Paper 24), applicants

4. The examiner also has rejected all the claims on appeal as being unpatentable under 35 U.S.C. § 103 over Culbertson, U.S. Patent 4,279,833 (1981)⁷ (Examiner's Answer, page 3).

Applicants' position

5. As is apparent from claims 1 and 21, reproduced above, each has a limitation requiring that [b] the film-forming composition being further characterized **as having a calculated hydroxyl value less than 50 based on solid weight of said clear film-forming composition, excluding any hydroxyl functionality associated with N-methylol groups** [c] so as to result in a crosslinked coating which has a substantial number of urea crosslinks arising from said reaction of pendant or terminal groups with said methylol and/or methylol ether groups, [d] **giving said crosslinked coating a high level of acid etch resistance.**

6. In their brief on appeal, applicants make the following argument (page 9):

state that the decision in Interference 103,711 "has no bearing on the prior art status" of Reh fuss. Hence, we decide the appeal assuming Reh fuss to be prior art.

⁷ Culbertson is prior art under 35 U.S.C. § 102(b).

The Examiner *** essentially overlooks this important limitation of applicants' claims contending that the hydroxyl value would *** [have been] obvious to one skilled in the art and requires only routine skill to find an optimum or workable range. In applicants' claims, hydroxyl value is critical in maintaining the desired acid etch properties.

[I]t is believed that the Examiner has [not] established that control of the hydroxyl value would be within the skill of the art [to achieve "a high level of acid etch resistance"].

B. Discussion

It is important in presenting an Examiner's Answer, that an examiner address and respond to arguments made by the applicants in a brief on appeal. It is particularly important in a case where applicants maintain that the essence of their invention is not described by the prior art. We have not found a detailed or cogent response by the examiner to the argument made by applicants as set out in Finding 6. Yet, maintaining the hydroxyl value at a certain level is the essence of applicants' modus operandi for achieving high acid etch resistance. The examiner has thus failed to address a

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significant part of applicants' discovery, all as set out in claims 1 and 21,⁸

When all is said and done, the most which can be said is that the examiner's rejections are based on impermissible hindsight and thus the rejections are flawed as a matter of law. Compare In re McLaughlin, 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971) (obviousness judgments are necessarily based on hindsight; so long as judgment takes into account only knowledge known in the art, there is no error). In this case, the prior art reveals no connection between the hydroxyl value level and acid etch resistance levels.

For the reasons given, the examiner's rejections should be reversed.

C. Terminal disclaimer

There is a discussion on page 10 of applicants' appeal brief concerning a requirement made by the examiner in an advisory action (Paper 15) that a new terminal disclaimer be filed to avoid a possible double patenting problem with respect to application 08/345,918. Inasmuch as the examiner

⁸ This is not a case where an applicant is basing an argument on limitations which do not appear in the claims.

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did not maintain, or make, a double patenting rejection in the examiner's answer, we have no occasion to discuss any requirement that applicants file a terminal disclaimer.

D. Decision

The decision of the examiner rejecting all the claims on appeal as being unpatentable under 35 U.S.C. § 103 over Nordstrom in view of Reh fuss is reversed.

The decision of the examiner rejecting all the claims on appeal as being unpatentable under 35 U.S.C. § 103 over Culbertson is reversed.

REVERSED.

_____)	
FRED E. McKELVEY, Senior)	
Administrative Patent Judge)	
)	
)	
_____)	
RICHARD E. SCHAFER)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
_____)	
JAMESON LEE)	
Administrative Patent Judge)	

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